

Chapter VI

VE METHODOLOGY PART II: MARKETING PROPOSALS

Introduction

A VEP or VECF is a challenge to the status quo of any organization. It is a recommendation for change developed through a team effort and its adoption is dependent upon another team effort. The success of VE action is measured by the savings achieved from implemented proposals. Regardless of the effort invested and the merits of the proposal, the net benefit is zero if the proposals are not implemented. Marketing a proposal and subsequently guiding it to implementation often requires more effort than its actual generation. This chapter reviews some principles and practices which have been successfully used to facilitate the implementation of VEPs.

Presentation Phase

The concluding phase of the VE Job Plan includes the preparation and presentation of the proposal to those having approval authority. This phase also includes:

- o Preparing a plan for implementation.
- o Obtaining a decision regarding disposition of the proposal.
- o Assisting as needed in the implementation actions.
- o Preparing a final report, if appropriate.

Early in the planning stages, the actual decision makers should be identified and the procedures by which proposals are reviewed, approved, and implemented should be determined. This action is essential to assure proper consideration of VE proposals and timely incorporation of changes. When presented to the appropriate authority, the proposal should be self-explanatory and leave no doubt concerning its justification. Only factual and relevant information is included. All anticipated technical and economic variations from the existing design must be described. Including supporting data such as test results, examples of previous successful applications, etc., helps convince the reviewer of the merit of the proposal. Figure VI-1 (Page 6-8), is a sample VEP format. The following checklist represents the minimum information usually included in a VEP:

- o Identity of the project.
- o " Before and after descriptions.
- o Cost of current design.
- o Cost"-of proposed design.
- o Quantity basis for costs.

- o Implementation cost.
- o Potential savings.
- o Necessary actions for implementation.
- o Suggested implementation schedule.

Management, responsible for review and approval, must base their judgment on the documentation submitted with a proposal. The proposal and supporting documentation should contain all the data the reviewer will need to reach a decision. Top management is primarily concerned with net benefit and disposition. A manager may either be competent in the areas affected by the proposal or may rely on the advice of specialists. In either case, completely documented proposals are far more likely to be implemented. Generally proposals should contain sufficient discussion to assure the reviewer that:

- o Item/system performance is not adversely affected.
- o Supporting technical information is complete and accurate.
- o Potential savings **are** based on valid cost analyses.
- o The change is feasible (with an adequate qualification test or certification that a qualification test is not required. If necessary, include suggested arrangements for a qualification test as a contingency for acceptance).

Failure to provide adequate proposal documentation is a major cause of proposal rejection.. One analysis of rejected proposals concluded that approximately 40 percent of the rejections were due to incomplete or inadequate technical or cost information. It is usually the responsibility of the submitting activity to monitor the progress of **the** proposal through review, approval, and implementation. The submitting activity should take the initiative for providing any assistance it can to assure that delays in acting on the proposal are minimized.

Gaining VEP Acceptance

There are many ways to improve the probability and reduce the time required for acceptance and implementation of proposals. The most successful within the DoD environment are:

A. Consider the Reviewer's Needs

Use terminology appropriate to the training and experience of the reviewer. Each proposal is usually directed toward two audiences. First is the technical authority who requires sufficient technical detail to demonstrate the engineering feasibility of the proposed change. Second are those reviewers for whom the technical details can be summarized while the financial and procurement implications (implementation costs and likely benefits) are emphasized. Long-range **effects on** policies, procurement, and applications are usually more significant to the manager than to the engineer.

B. Progress Reports - "NO Surprises"

The manager who makes an investment in a VE action expects to receive periodic progress reports with estimates of potential results. Reporting is a normal and reasonable requirement of management. It helps assure top management awareness, support, and participation in any improvement program. There are very few instances where managers have been motivated to act by a one-time exposure at the "final presentation," no **matter** how "just" the cause. Therefore, it is advisable to discuss the change with the decision-makers or their advisers prior to submitting it as a formal change. This practice familiarizes key personnel with impending proposals, and enables them to evaluate them more quickly after submittal. Early disclosure may also serve to warn the originators of any objections to the proposal. This "early warning" will give the originators opportunity to incorporate modifications to overcome the objections. Often these preliminary discussions produce additional suggestions which improve the proposal and enable the decision-maker to contribute directly. If management has been kept informed of progress, the presentation may be only a concise summary of final estimates, pro and con discussion, and perhaps formal management approval.

C. The "Action" Board Technique

Approval authority for a VE proposal may be vested in one individual; but seldom does an individual possess all the specialized knowledge required to make an informed decision. The decision is usually reached after weighing the advice of specialists. One method of easing the task of the decision maker is to incorporate into the review procedure a Technical and Management Action Board (TMAB). The TMAB meets to hear, discuss, and review VEPs. The board should consist of those personnel upon whose advice the responsible manager will ultimately base his or her decision. This mechanism assures timely communication among the responsible organizational components.

In addition to the normal data package presented with each proposal, the TMAB may also request the originators to prepare the documents necessary to revise handbooks, catalogs, contract-change notices, purchase requests, and all of the data necessary for the Configuration Control Boards. The VEP originators meet with the TMAB periodically and collectively discuss each proposal so that any misunderstanding can be identified and promptly resolved. Upon completing the review, the TMAB may then approve the proposal for implementation. If the proposal is disapproved, the TMAB informs the originators of the reason(s) for disapproval. Sometimes a minor change may make the proposal acceptable.

During these meetings, the nuclei of additional VEPs may be generated. The TMAB often includes on its agenda discussions of preliminary proposals (those not yet submitted in final form). The TMAB then offers to the originators of the preliminary proposals guidance concerning road blocks, previous history, and additional areas of possible opportunity. This early rapport between those originating and those reviewing proposals tends to improve the VE yield.

Several DoD contractors report use of similar decision board procedures with their VE task force efforts and training seminars to improve **proposal** acceptance. The primary advantages of the review board concept are that it generally increases VEP acceptance rates, and decreases VEP processing

and implementation time. These same insights are also applicable to contractor generated **VECPs**. Early warning, no surprises, and appropriate marketing emphasis are equally useful for contractor **VECP** submittals. An understanding of the operation of configuration management or other DoD decision management processes are also vital elements of successful contractor **VE** efforts.

D. Relating Benefits to the Long-Term Organizational Objective.

A **VE** action which represents an advancement toward some approved objective is most likely to receive favorable consideration from management. In the DoD, the potential of a proposal is not a profit but a capability. Therefore the presentation should exploit **all** of the advantages a proposal may offer toward fulfilling organization objectives and goals. When reviewing a proposal the DoD manager normally seeks either lower total cost or increased combat capability for the same or lesser dollar investment. The objective may be not only savings but also the attainment of some other mission-related goal.

In industry, reducing costs helps to achieve adequate profits to-assure survival of the business and its attendant job opportunities. Properly presented industry in-house proposals should:

- o Communicate the expected contribution to profit or other benefits.
- o Give more attention to competitive position. The proposal should contain an analysis of the competitive situation and mention any competitive advantage offered by prompt implementation. Industry management is interested in competitors' actions or likely reactions. Management is very likely to accept recommendations that show an opportunity to gain competitive advantage or offset a disadvantage. For example, if an offering price is currently above that of a competitor, the entire projected cost savings might be converted into a price reduction to capture a marketing opportunity with the DoD. This consideration belongs in the VEP whenever possible.

E. Support the Decision-Maker

The dollar yield of a **VEP** is likely to be improved if it is promptly implemented. Prompt implementation in turn, is dependent upon the expeditious approval of the individuals responsible for a decision in each organizational component affected by the proposal. These individuals should be located and the entire **VE** effort conducted under their sponsorship. The **VE** group becomes the decision-maker's staff preparing information in such a manner that the risk can be weighed against the potential reward. Like any other well-prepared staff report, each VEP should satisfy any questions likely to be asked and include sufficient documentation to warrant a favorable decision with reasonable risk factors (both technical and economic).

F. Minimize Risk

If **VE** proposals presented to management are to be given serious consideration, they should include adequate evidence of a satisfactory return on the **VE** investment. Often current contract **savings alone** will assure an adequate return. In other cases life-cycle or total-program savings must be considered.

Either way evidence of substantial benefits will improve the acceptability of a proposal. The cost and time spent in testing to determine the acceptability of a **VE** proposal may offset a portion of its savings potential. Committing such an investment with no guarantee of success constitutes a risk which could deter acceptance of a VEP. This risk may be reduced by prudent design and scheduling of test programs to provide intermediate assurances indicating the desirability of continuing with the next step. Thus, the test program may be terminated or the proposal modified when the concept first fails to perform at an acceptable level. Major expenditures for implementing proposed **VE** actions should not be presented as a lump sum aggregate, but rather as a sequence of minimum-risk increments. A manager may be reluctant to risk a total investment against total return, but may be willing to chance the first phase of an investment sequence. Each successive investment increment would be based upon the successful completion of the previous step.

G. Combine Testing

Occasionally a significant reduction in implementation investment is possible by concurrent testing of two or more proposals. Also, significant reductions in test cost can often be made by scheduling tests into other test programs scheduled within the desirable time frame. This is particularly true when items to be tested are a part of a larger system also being tested. However, care must be exercised in instances of combined testing to prevent masking the feasibility of one concept by the failure of another.

H. Show Collateral Benefits of the Investment

Often **VE** proposals offer greater benefits than the cost improvements specifically identified. Some of the benefits are collateral in nature and difficult to equate to monetary terms. Nevertheless, collateral benefits should be included in the proposal. The likelihood of acceptance of the VEP is improved when all of its collateral benefits are clearly identified and completely described.

I. Acknowledging Contributors

An implemented **VE** proposal always results from a group effort. All individuals and data sources contributing to a proposal should be clearly identified. Identification of contributors provides the reviewers with a directory of sources from which additional information may be obtained. In addition, individuals, departments, and organizations should be commended when it is deserved. This recognition promotes cooperation and participation essential to the success of subsequent **VE** efforts.

Implementation and Follow-Up Phase

DoD experience with military equipment indicates that implementation and test costs may run \$6 to \$10 for each dollar of **VE** study cost. The need to invest to save must be emphasized when submitting change proposals. Some degree of investment is required if a **VE** opportunity is to become a reality. Funds for implementation have to be provided. Within the DoD, the organizational component responsible for implementing accepted proposals, must request

funds and budget and schedule the effort necessary. In some instances **imple-**mentation can be accomplished in a matter of days. In situations where the need is not immediate or when extensive laboratory or field testing is required, implementation may take up to two years.

Regardless of the length of time needed, the key to successful implemen-
tation lies in scheduling the necessary actions into the workload. Management
should review progress periodically to insure that any roadblocks which arise
are overcome promptly. If the responsible personnel also contributed to the
"proposal they are likely to sustain effectively the implementation program.
Once implemented, proposals and their associated savings **shall** be included
in the DoD **VE** reporting system and entered into the **VE** data bases.

Within the DoD, **VE** action officers are required to enter information on
implemented in-house VEPS and contractor submitted **VECPs** into the DoD Value
Engineering Data Information Storage and Retrieval System (**VEDISARS**). A
sample of the **VEDISARS** data entry form (DD Form 2333, **GIDEP** Value Engineering
(**VE**) Data Base Report) is shown in Figure VI-2, (Page 6-9). **VEDISARS** is operated
by the Officer in Charge, Government-Industry Data Exchange Program (**GIDEP**),
who is located at the U.S. Navy Fleet Analysis Center, Corona, California. The
purpose of **VEDISARS** is to maintain a data base of accepted and implemented **VE**
actions which may be of use to others.

Approximately 1,000 clients in both Government and industry are served
by the **GIDEP**. Clients receive periodic reports and one-time priority notifi-
cations concerning quality and reliability problems as well as information on
the other data bases maintained by the **GIDEP**. An on-line data base search
capabability is also available for the **VE (VALU)** data base as well as the
other data bases.

GIDEP is a funded activity. Its clients are served at no cost. All DoD
personnel who are listed in the DoD **VE** Points of Contact have been assigned
GIDEP location codes and may access **GIDEP** by using any type of compatible
terminal or personal computer.

Summary

Successful presentation, implementation, and follow-up of VEPS and VECPS
requires proper planning, procedures, and communications. Early determination
of the key decision-makers and subsequent coordination and communication with
these individuals during the **VE** study can minimize roadblocks. Coordination
and cooperation with all elements concerned can develop proposal support prior
to formal submittal. Approval action is best expedited by an informed manage-
ment. Thus the action originators are obligated to keep the decision-makers
advised of progress, a preview of what to expect, and submit complete docu-
mentation to answer all questions that are likely to be asked.

Use of the action board technique establishes a channel of communication
and coordination **to** expedite approval and implementation of proposals. Prior
to the start of any **VE** effort, management should plan to ☐ake available the
funds necessary **to implement** the anticipated proposals. Documentation should

include factors to justify the investment necessary for implementation. The proposal should provide information relating to benefits in life cycle and collateral savings and long-term organization objectives. The originator should consider the risk factor undertaken by management when preparing a presentation. A list of individuals recognized as contributors to a VE effort serves as a directory of sources of additional information.

FACSIMILE DoD IN-HOUSE
VALUE ENGINEERING PROPOSAL (VEP)

1. Proposal Title: _____ Dept./Agency: _____
Items/Component/Subsystem: _____ Originating Activity: _____
System/Project Title: _____ Location: _____

PROJECT INITIATOR/TEAM PERSONNEL

Name	Activity Office Symbol	Tel. Ext.
------	------------------------	-----------

II. CONCEPT BEFORE VE APPLIED Describe original status and function using sketch/photo, parameters/procedures and cost basis: (Attach additional supporting information and description when helpful to explain any of Parts 11/111.)	PROPOSED CONCEPT AFTER VE APPLIED Describe proposed change and that basis for lower overall cost, including any other added benefits:
---	---

(1) Gross est. savings to DoD Current FY: _____	(2) Less total est. offsetting costs : _____
(3) Est. net savings Current FY: _____ 2nd FY: _____ 3rd FY: _____	

III. IMPLEMENTATION OF VEP

Approved By: _____ Date: _____ Activity: _____	Disapproved By: _____ Date: _____ Activity: _____ Reason: _____
--	--

Contract/Work Order Affected: _____

Funding Citation: _____
(If more space needed, use other side.)

Figure VI-1

GIDEP VALUE ENGINEERING (VE) DATA BASE REPORT VE DATA INFORMATION STORAGE AND RETRIEVAL SYSTEM (VEDISARS) <small>(NOTE: Items in brackets [] are searchable; others are not.)</small>										REPORT CONTROL SYMBOL DD-DR&E(AR)1655	
[1.] TITLE OF VE ACTION										[2.] INTERNAL CONTROL NO.	
										[3.1] DATE OF SUBMISSION (YYMM)	
[4.] TYPE OF ACTION (X one)		a. VECP		[5.1] DOD COMPONENT		[6.] REPORTING ACTIVITY/COMMAND					
[7.] CATEGORY (X one)		a. AIRCRAFT		d. SHIP/BOAT		g. SUBMARINE		j. SPACE CRAFT			
		b. WHEEL VEHICLE		e. TRACK VEHICLE		h. SUPPORT		k. COMMUNICATIONS			
		c. SOFTWARE		f. CONSTRUCTION		i. MISSILES		l. AMMUNITION			
[8.] FUNCTION											
[9.] ITEM NOMENCLATURE										[10.] MAJOR SYSTEM (X one)	
11. SYSTEM IDENTIFICATION										YES NO	
[12.] PART NUMBER										[13.] NATIONAL STOCK NUMBER (NSN)	
14. SAVINGS / BENEFITS BY FISCAL YEAR				a. FY \$ K		b. FY \$ K					
				c. FY \$ K		d. FY \$ K					
15. APPROPRIATION (Title)		16. PROGRAM ELEMENT			17. COST TO DEVELOP AND IMPLEMENT \$ K			18. FUNDING APPROPRIATION			
19. POINT OF CONTACT											
a. NAME (Last, First, Middle Initial)					b. TITLE						
c. OFFICIAL ADDRESS (Command, Division, Street, City, State, Zip Code)					d. PHONE NUMBER						
					(1) AUTOVON						
					(2) COMMERCIAL						
					(3) FTS						
20. CONTRACT NUMBER					21. CONTRACT MODIFICATION NUMBER AND DATE						
22. CONTRACTOR NAME					23. CONTRACTOR IDENTIFICATION NUMBER						
24. THIS ACTION RESULT OF DATA BASE SEARCH? (X one)		YES		25. THIS ACTION RESULT OF VE COURSE /WORKSHOP (X one)		YES		26. THIS ACTION RESULT OF VECP FROM SUBCONTRACTOR? (X one)		YES	
		NO				NO				NO	
[27.] KEY SEARCH WORDS											
28. DESCRIPTION OF VE ACTION (Continue on separate sheet if necessary.)											
29. SUBMITTING OFFICIAL											
a. TYPED NAME (Last, First, Middle Initial)					b. SIGNATURE			c. DATE SIGNED (YYMMDD)			

INSTRUCTIONS FOR COMPLETION OF DD FORM 2333

Use DD Form 2333 to report approved and implemented
VE actions in the VE Data Information Search and Retrieval System (VEDISARS).

Forward typed original to: GIDEP Operations Center, Attn: VE
Corona, CA 91720-5000

[1.] TITLE OF VE ACTION. Enter the title of the
VE action. (60 characters or less)

[2.] INTERNAL CONTROL NUMBER. Enter the
Reporting Command/Activity Control Number
used to track the action internally. Example:
NAVELEX VECP 8500004LS (20 characters or less)

[3.] DATE OF SUBMISSION. Enter current date in
4 digit format of year, month. Example: July 27,
1984 would be 8407.

[4.] TYPE OF ACTION. Mark type of action.

[5.] DOD COMPONENT. Enter the name of the
DoD component preparing the report; i.e., Army,
DLA, etc. (10 characters or less)

[6.] REPORTING ACTIVITY / COMMAND. Enter
name of the activity reporting the action, OR if
known, the VE activity address code assigned by
GIDEP Operations Center. Example: AM C-
MICOM OR XX12.

[7.] CATEGORY. Mark the applicable category.

[8.] FUNCTION. Enter the major function(s)
expressed in a verb-noun format. Example:
transmit torque. (30 characters or less)

[9.] ITEM NOMENCLATURE. Enter the noun
nomenclature of the item actually being value
engineered. (40 characters or less)

[10.] MAJOR SYSTEM. Mark the applicable box
based on the definitions in DODI 5000.2.

11. SYSTEM IDENTIFICATION. Enter name of
highest assembly / system the value engineered
item is a part of; i.e., M1 Tank, F15 Aircraft, etc.

[12.] PART NUMBER. Enter the part number
assigned in the technical data package for the
value engineered item. (20 characters maximum)

[13.] NATIONAL STOCK NUMBER (NSN). Enter the
NSN of the value engineered item OR if not
assigned, enter Federal Supply Class (FSC).

14. SAVINGS / BENEFITS BY FISCAL YEAR. Enter
the net savings to DoD by fiscal year and dollars in
thousands.

15. APPROPRIATION. Enter the name of the
appropriation benefitting from the VE action;
i.e., RDTE, Procurement, etc.

16. PROGRAM ELEMENT. Enter the specific
program element under the appropriation
directly benefiting from the VE action.

17. COST TO DEVELOP AND IMPLEMENT. Enter
the total cost (in thousands of dollars) to develop
and implement the VE action.

18. FUNDING APPROPRIATION. Enter the name
of the appropriation which funded the
development and implementation of the VE
action.

19. POINT OF CONTACT. Enter the specified
data.

20. CONTRACT NUMBER. Enter the number of
the contract the VECP was submitted under, if
this is a VECP action. See Item 4.

21. CONTRACT MODIFICATION. Enter the
number and date of the contract modification
that incorporated the VECP.

22. CONTRACTOR NAME. Enter the name of the
contractor/company that submitted the VECP.

23. CONTRACTOR IDENTIFICATION NUMBER.
Enter the 9 digit alphanumeric DUNS code
number for the contractor. (Reference DoD FAR
Supplement, Section 4.671- 5(b)(4)(i))

24. DATA BASE SEARCH. Mark appropriate
box, specifying whether this action was result of
VEDISARS / GIDEP search.

25. VE COURSE/ WORKSHOP. Mark appropriate
box.

26. VECP FROM SUBCONTRACTOR. Mark
appropriate box.

[27.] KEY SEARCH WORDS. Enter additional key
search words not stated elsewhere in searchable
portion of form.

28. DESCRIPTION OF VE ACTION. Describe VE
Action.

29. SUBMITTING OFFICIAL. Typed name and
signature of the local VE or GIDEP representative
and date form signed

NOTE: Item numbers in brackets [] are searchable; others are not.